AMENDMENTS TO THE DRAWINGS

Attached hereto in an Appendix 1A is one (1) sheet of drawings to replace a drawing sheet originally filed in this application. This sheet, which includes FIGS. 5A-6B, replaces the original sheet that also includes FIGS. 5A-6B. In the replacement sheet, the word "BETTERY" in respective labels of FIGS. 5A, 6A, and 6B has been replaced with the word "BATTERY".

REMARKS

1.   In response to the Office Action mailed April 24, 2009, Applicant respectfully requests reconsideration. Claims 1-38 were last presented for examination. Claims 1-11, 26-28 and 34-38 have been withdrawn from consideration. In the outstanding Office Action, claims 12-25 and 29-33 were rejected. By the foregoing Amendments, claims 12-15, 17, 19, 22, and 30-32 have been amended. Claims 39-56 have been added, and claims 1-11, 16, 18, 26-29, and 34-38 have been cancelled. Upon entry of this paper, claims 12-15, 17, 19-25, 30-33, and 39-56 will be pending in this application. Of these thirty-four claims (34) claims, 3 claims (claims 12, 39, and 47) are independent.

2.   Based upon the above Amendments and following Remarks, Applicants respectfully requests that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

Drawings

3.   The Examiner objected to the drawings because of a typographical error in the word "BETTERY" in labels of FIGS. 5A and 6A of the drawings. In a replacement sheet attached hereto, FIGS. 5A, 6A, and 6B have been amended to replace the word "BETTERY" with "BATTERY" in labels of those figures. Accordingly, Applicants respectfully request that the objections to the drawings be withdrawn.

Claim Objections

4.   The Examiner objected to claim 13 because, in the response submitted January 12, 2009, claim 13 was marked "previously presented", but varied from claim 13 as amended in the response submitted August 18, 2008.

5.   In the response submitted January 12, 2009, claim 13 should have recited, "The system according to claim 12, wherein said voltage maintaining means engages after said current maintaining means charges said rechargeable battery to said predetermined maximum voltage." Applicants thank the Examiner for identifying this discrepancy. Applicants have amended

claim 13 above, and the amendments to claim 13 are reflected relative to the claim language as amended in the response submitted August 18, 2008.

6.   Accordingly, Applicants respectfully request that the objections to the claims be reconsidered and withdrawn.

Claim Rejections under §112

7.   The Examiner rejected claims 12, 13 and 29 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8.   The Examiner objected to the language "the determined current" in Applicants' claim 12 as allegedly lacking sufficient antecedent basis. As amended, Applicants' claim 12 no longer recites "the determined current." Accordingly, Applicants respectfully request that the rejection of claim 12 and dependent claim 13 under 35 U.S.C. §112, second paragraph, be reconsidered and withdrawn. Further, independent claim 29 has been canceled, thus rendering the rejection of claim 29 moot.

Rejections of claims 12-20 under §102

9.   The Examiner rejected claims 12-20 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,768,286 to Trembley (hereinafter, "Trembley"). Applicants respectfully disagree for at least the following reasons.

10.   Trembley is directed to a battery charging system and method. (*See*, Trembley, col. 1, lines 32-37.) In particular, Trembley discloses a storage controller 302 that includes two batteries (402a and 402b) and a battery charger 404, which includes a microcontroller 406 and a charging circuit 408. (*See*, Trembley, col. 4, lines 52-55; and col. 5, lines 14-15.) Trembley discloses that microcontroller 406 controls whether to charge the batteries, and controls which of the two batteries gets charged. (*See*, Trembley, col. 5, lines 17-20 and 35-40.) In addition, microcontroller 406 can obtain various battery characteristics, such as temperature, voltage, and current, and also includes status registers for storing battery characteristics. (*See*, Trembley, col. 5, lines 20-22 and 41-45.) Trembley also discloses that "[m]icrocontroller 406 utilizes the

voltage and temperature to determine an appropriate charging state for either battery 402a, 402b and to control the charging of battery 402a, 402b." (*See*, Trembley, col. 5, lines 30-34.)

11.   Applicants' amended claim 12 recites "means for determining a first dynamic range for the rechargeable battery for a first plurality of charging cycles; and means for calculating an offset error for said determining means while there is no more than a relatively low load on the rechargeable battery." (*See*, Applicants' claim 12, above.) For at least the following reasons, Applicants submit that Trembley fails to disclose at least a "means for calculating an offset error for said determining means . . . ," as recited in Applicants' amended claim 12.

12.   Prior to the present amendment, Applicants' claim 12 recited "means for determining a cyclical current to be delivered to said rechargeable battery," and "means for correcting said determining means." The Examiner previously relied upon microcontroller 406 of Trembley as allegedly teaching the features of both the formerly recited determining means as well as the formerly recited correcting means. (*See*, Office Action, page 4.)

13.   While Trembley discloses various functions of microcontroller 406, Applicants submit that Trembley fails to disclose that microcontroller 406 "calculate[es] an offset error for said determining means," as recited in Applicants' claim 12, above. For at least these reasons, Applicants submit that Trembley fails to anticipate or render obvious "means for calculating an offset error for said determining means . . . ," as recited in Applicants' claim 12, above. Thus, Applicants respectfully request that the rejection of claim 12 be reconsidered and withdrawn.

Rejections of claims 29-31 under §102

14.   The Office Action also rejects claims 29-31 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,500,561 to Wilhelm (hereinafter, "Wilhelm"). Applicants respectfully disagree for at least the following reasons.

15.   In the present amendment, Applicants have canceled independent claim 29 and added new independent claim 39. Applicants' new claim 39 recites "a measuring circuit configured to measure one or more parametric data during the first cycle, and calculate an offset error of the measuring circuit while no load is placed on the rechargeable battery." (*See*, Applicants' claim 39, above.) Applicants submit that for at least the following reasons, Wilhelm fails to disclose

"a measuring circuit configured to . . . calculate an offset error of the measuring circuit," as recited in Applicants' new claim 39.

16.   Wilhelm discloses a power management system for use by a utility customer "for reducing the customer's peak power demand charges from an electric utility." (*See*, Wilhelm, col. 1, lines 14-19; *see also* Abstract.) A power management system disclosed by Wilhelm includes an AC-to-DC power supply 38 and a storage battery 34. (*See*, Wilhelm, col. 4, lines 4-5 and col. 7, lines 63-66.) During peak periods, storage battery 34 contributes power for the customer's load. (*See*, Wilhelm, col. 8, lines 53-56.) However, during non-peak periods, power supply 38 charges storage battery 34 and provides power to some load of the customer. (*See*, Wilhelm, col. 8, lines 45-49.)

17.   Applicants' previously pending claim 29 recited "a testing circuit configured to test said measuring circuit for offset error." The Examiner relied upon elements 14, 20, 28, and 32 of Wilhelm as allegedly teaching this feature. (*See*, Office Action, page 6.) However, Applicants submit that elements 14, 20, 28, and 32 of Wilhelm do not anticipate "a measuring circuit configured to . . . calculate an offset error of the measuring circuit," as recited in Applicants' new claim 39.

18.   Wilhelm discloses that element 14 is an integrator circuit 14 that averages measurements corresponding to the customer's power consumption. (*See*, Wilhelm, col. 5, lines 10-16 and 25-27.)   In addition, Wilhelm discloses that element 20 is a differential amplifier circuit 20. (*See*, Wilhelm, col. 5, line 58.) Wilhelm also discloses that elements 28 and 32 are an automatically adjustable set point circuit 28 and a manually adjustable set point circuit 32, respectively. (*See*, Wilhelm, col. 5, lines 52 and 54.)

19.   Wilhelm discloses that "the comparator (or more preferably the differential amplifier) circuit 20 will compare the threshold signal provided by either set point circuit 28,32 . . . with the output signal from the integrator circuit 14." (*See*, Wilhelm, col. 6, lines 24-28.) In addition, "[t]he threshold signal represents the power level at which a secondary source of DC power, such as a storage battery 34, forming part of the power management system is to take over in supplying power to one or more various loads in the customer's facility." (*See*, Wilhelm, col. 5, lines 58-63.) Thus, Wilhelm appears to disclose using elements 14, 20, 28, and 32 to

determine when a power management system should begin using the storage battery to supply power to one or more loads of the customer's facility.

20.   However, Applicants submit that Wilhelm fails to disclose that elements 14, 20, 28, and 32 "calculate an offset error of the measuring circuit," as recited in Applicants' claim 39, above. For at least these reasons, Applicants submit that Wilhelm fails to anticipate or render obvious "a measuring circuit configured to . . . calculate an offset error of the measuring circuit," as recited in Applicants' claim 39, above. Thus, Applicants respectfully request that the stated rejections of claims 29-31, insofar as they may apply to claim 39, be reconsidered and withdrawn.

Dependent claims

21.   The dependent claims incorporate all the subject matter of their respective independent claims and add additional subject matter which makes them independently patentable over the art of record. Accordingly, Applicant respectfully asserts that the dependent claims are also allowable over the art of record.

New Claims

22.   For the reasons discussed above with reference to claim 39, Applicant submits that new claims 47-54 are not anticipated by Trembley or Wilhelm.

Claim of Priority under 35 U.S.C. § 119

23.   Applicants note that the Examiner has not checked the boxes on form PTOL-362 acknowledging Applicants' claim of foreign priority under 35 U.S.C. § 119 and receipt of the certified copy of the priority document submitted April 20, 2006. Applicants respectfully request that the Examiner acknowledge both Applicants' claim of foreign priority and receipt of the certified copy of the priority document in the next Office Action.

Conclusion

24.   In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

25.   Applicant reserves the right to pursue any cancelled claims or other subject matter disclosed in this application in a continuation or divisional application. Any cancellations and amendments of above claims, therefore, are not to be construed as an admission regarding the patentability of any claims and Applicant reserves the right to purse such claims in a continuation or divisional application.

Dated: August 24, 2009   Respectfully submitted,

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APPENDIX 1A